

Notice of Allowability

Application No.

09/580,160

Examiner

Adnan M. Mirza

Applicant(s)

KOSTADINOV, VLADIMIR

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/05/2006.
2. ☒ The allowed claim(s) is/are 1-9 and 11-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


JASON CARDONE
SUPERVISORY PATENT EXAMINER

EXAMINER'S AMENDMENT

An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicants, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it must be submitted no later than the payment of the issue fee.

Authorization for this Examiner's Amendment was given in a telephone interview with Robert W. Gauthier on 02/28/07.

Please cancel claim 10.

Please amend the existing claims 1,11,19 and 21 below:

1. (Currently Amended) A method for modifying processing on at least one control device controlling operation of process control equipment, the method comprising: transferring data from a remote host device to the at least one control device during unscheduled communications periods and without interrupting operation of the at least one control device, the remote host device and the: at least one control device being coupled through a Field bus communications network; storing the transferred data to a respective inactive memory area; monitoring at least one parameter; and, communicating, when the parameter attains a specified value, a command to redirect at least one control device microprocessor, during an idle period. of the at least one control device microprocessor, to execute the stored data in the inactive memory area to modify the processing on the at least once control device.

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11. (Currently Amended) A system for modifying processing on at least one control device, the system comprising: a remote host device coupled through a Field bus communications network to the at least one control device and configured to transfer data. to the at least one control device during unscheduled communications periods between the at least one control device and control equipment of at least one process controlled by the at least one control device and without interrupting operation of the at least one control device; at least one control device active memory area and at least one control device inactive memory area; at least one control device microprocessor to execute instructions and data in. the at least one active memory area; and., a control device selector module to direct the at least one control device microprocessor to the at least one active memory area, the selector module further comprising a scheduling module to monitor at least one parameter and, when the parameter attains a specified value, to redirect the at least one control device microprocessor during microprocessor idle periods to modify the processing on the at least one control device.
19. (Currently Amended) A method of implementing a software upgrade for a control device, the method comprising: transferring, without interrupting operation of the control, device, software upgrade data from a remote host device to the control device during unscheduled communications periods between the control device and control equipment of at least one process controlled by the control device, the remote, host device and the control device being coupled through a Field bus communications network; storing the upgrade data to a respective inactive memory area; monitoring at least one parameter: and, communicating, when tile -parameter attains a specified value, a command to redirect at least one microprocessor of the control device, during an idle period of the at least one microprocessor, to execute the stored upgrade data in, the inactive memory area to implement the software upgrade for a next active period of the microprocessor.

21. (Currently Amended) A method for modifying processing on at least one control device, the method comprising: transferring data from a remote host device to the at least one control device without interrupting operation of the at least one control device and during unscheduled communications periods between the at least one control device and control equipment of at least one process controlled by the at least one control device, the remote host device and the at least one control device being coupled through a Field bus communications network; storing the transferred data to a respective inactive memory area; monitoring at least one parameter; and, communicating, when the parameter attains a specified value, a command to redirect at least one control device microprocessor during an idle period to execute the stored data in the inactive memory area to modify the processing on the at least one control device, the idle period including a period when the microprocessor is not actively controlling the control equipment and when the microprocessor is not actively processing data from the control equipment, the microprocessor implementing the modified processing for a next active period of the microprocessor with respect to the control equipment.

REASON'S FOR ALLOWANCE

1. The claims 1-9, 11-21 have been allowed.
2. The following is an examiner's statement of reasons for allowance:

The prior art references most closely resembling the applicant's claimed invention are Stevenson et al (U.S. 6,738,388), Soltis et al (U.S 6,493,804) and Wadsworth et al (U.S 6,067,407).

First Stevenson disclosed communication between the internal and external function blocks in Stevenson et al. take place between the controller 12 and field devices, e.g., 43,44,46 and 48. However Stevenson failed to disclose, "monitoring at least one parameter; and, communicating, when the parameter attains a specified value, a command to redirect" (claims 1,11,19,21).

Second Soltis disclosed SCSI Mode and Mode select commands that allow access to and modification of a SCSI-defined Device Locks mode page on a storage device, which are used for configuring the device locks and that typically include several SCSI-defined pages of configuration data. However Soltis did not disclose, "monitoring at least one parameter; and, communicating, when the parameter attains a specified value, a command to redirect" (claims 1,11,19,21).

Third Wadsworth et al. describe dump and debug utilities that provide mechanisms for a network user to remotely examine and control software executing on an interface board connected else where to the network. The dump and debug utilities are provided on workstations

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and generate network communications packets which are transmitted to the interface board. The interface board includes an interrupt-driven network driver program that responds to the dump-debug network packet to cause the desired dump/debug facilities to be executed. However Wadsworth failed to disclose, "monitoring at least one parameter; and, communicating, when the parameter attains a specified value, a command to redirect" (claims 1,11,19,21).

In summary, the Examiner submits that there is no motivation to combine the aforementioned references; therefore, claims 1-9,11-21 have been deemed allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adnan Mirza whose telephone number is (571) 272-3885. The examiner can normally be reached on Monday through Friday from 9:30 A.M. to 6:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Jason Cardone, can be reached on (571) 272-3933. The fax phone numbers for the organization where this application or proceeding is assigned are listed herein below.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866)-217-9197 (toll-free).



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